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CLAIMS

1.   An apparatus for classifying elements, in particular elements within an image, wherein an element is defined by a vector of feature values, the apparatus comprising:

classifier means comprising a plurality of classifiers each operable, in respect of an element to be classified, to receive a different predetermined subset of the feature values from the element feature vector and wherein, in operation, each said classifier is trained in respect of a predetermined set of classes using training data representative of elements in each said class; and

combining means operable to combine outputs from the plurality of classifiers to determine which of the predetermined classes to associate with an element to be classified,

characterised in that each of said different predetermined subsets of feature values comprise a different cyclic selection of the feature values such that, in operation, adjacent feature values in an element feature vector are input to different ones of said plurality of classifiers and all feature values are input to at least one classifier.

2.   An apparatus according to Claim 1, arranged for use in classifying pixels in a hyperspectral image, wherein each of said feature vector values are associated with a different respective frequency band in the hyperspectral image.

3.   An apparatus according to Claim 2, wherein each of said feature vector values represents the intensity of light in the respective frequency band.

4.   A method for classifying elements, in particular elements within an image, wherein an element is defined by a vector of feature values, the method comprising the steps of:

(i)   using, for each a set of predetermined classes, a training dataset representative of elements in the class to train a plurality of classifiers in respect of the class, wherein each classifier is operable to receive feature vector values in respect of a different predetermined cyclic selection of features such that adjacent feature values in an element feature vector are input to different ones of said plurality of classifiers and all feature values are input to at least one classifier;

(ii)   receiving a feature vector for an element to be classified;

(iii)   inputting the received feature vector values to said plurality of trained classifiers according to said predetermined cyclic selections and generating a plurality of classifier outputs; and

(iv)   combining the classifier outputs to determine which of said predetermined classes to associate with the element to be classified.